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EXAMINER JACOBSON, MICHELE LYNN				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,117

Applicant(s)

GUZMANN ET AL.

Examiner

MICHELE JACOBSON

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 9, 10, 12-20, 22, 24-27, 29-31, 33, 34 and 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 9, 10, 12-20, 22, 24-27, 29-31, 33, 34 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Final Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 30 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 30 recites a bottle having two compartments with each compartment being sealed by a different component of the closure. Since the two components of the closure are recited in claim 1 to abut one another and each component defines a seal enclosing a volume the components are required to seal the same volume. It would be impossible for two separate compartments to be sealed by different components of the single closure recited in claim 1. Since claim 30 recites an invention that would be impossible to produce according to the limitations of the claim, claim 30 is not enabled. Claim 31 is not enabled since it is dependent from claim 30.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites a closure comprising a first hydrophobic component and a second hydrophilic component that abut against one another. Claim 19, which depends from claim 1, recites that the components of the closure are arranged in a two layer structure. Claim 22, which depends from claim 19, recites that the "first layer is disposed within or adjacent to a dispensing aperture of the bottle defining a first seal and a second layer if disposed across a lower portion of the bottle defining a second seal". If the first and second component recited in claim 1 are in a two layer structure and abut one another as required by claims 1 and 19, it would be impossible for one of the layers to be disposed across a lower portion of the bottle than the first layer. For the purpose of examination, claim 22 will be interpreted to as the two abutting layer closure of claim 1 having a first layer adjacent the dispensing aperture making a first seal and the second layer being disposed on the opposite side of the first layer from the aperture defining a second seal.

5. Claims 33 and 34 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites a closure comprising a first hydrophobic component and a second hydrophilic component that abut against one another. Claim 25, which depends from claim 1, recites a bottle comprising the closure of claim 1. Claim 33, which depends from claim 25, recites a bottle "wherein a portion of the composition is sealed by a first component of the closure and a second portion is

sealed by a second component of the closure". This recitation is indefinite because the components recited in claim 1 must abut one another and therefore when disposed in a bottle can only participate in one seal for one portion of the composition. The examiner believes applicant may have intended an embodiment similar to that claimed in claim 29, but it is unclear how applicant intended for one closure that is comprised of two abutting components to be capable of sealing two separate portions. Since it is impossible to discern what invention applicant intended claim 33 to encompass, this claim will not be examined on the merits. Since claim 34 is dependent from indefinite claim 33 it will also not be examined on the merits.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 7, 9, 10, 12, 19-20, 24-27, 29, 30 and 36 are rejected under 35 U.S.C. 102(b) as anticipated by Speed et al. U.S. Patent Application Publication No. 2002/0187910 (hereafter referred to as Speed).

3. Speed teaches an automatic laundry or dishwashing product in a unit dose that has three distinct trigger zones each containing a different chemical composition for release during 3 distinct stages of the washing cycle. (Para. 14) A typical wash cycle is

recited to comprise a pre-wash cycle (typically cold water), a main-wash cycle that starts cold and heats up to about 55°-65° C, two or more rinse cycles with cold water before a final rinse cycle that starts out cold and heats up to about 65°-75° C. (Para. 13)

The composition released during the main wash cycle provides a wash liquor pH of about 10 or above, the composition released during the first rinse cycle provides a wash liquor pH from about 8 to about 9.5 and the composition released during the final rinse provides a wash liquor pH of about 5 or below. (Para. 17)

4. The delivery of different compositions in different cycles can be achieved by including physical, chemical or mechanical trigger-means for releasing the main wash (Speed's primary cleaning zone), first rinse cycle (Speed's secondary cleaning zone) and rinse cycle (Speed's finishing zone) compositions. (Para. 25-29) The trigger means are each responsive to one or more of temperature, pH, redox potential, ionic concentration, enzymatic reaction or time. (Para. 25) The compositions for the different wash cycles can be contained in a pouch, capsule, tablet or compact and the triggers can be in the form of a film or capsule wall and may be formed by vacuum forming, thermo-forming or a combination of both. (Para. 33,95)

5. The trigger for the main wash cycle is recited to be temperature dependent and comprised of warm water soluble polyvinyl alcohols. (Para. 83, 86) A trigger layer that is warm water soluble solves the problem of gelling when handling the product of the invention with wet hands. (Para. 84)

6. The secondary cleaning zone is recited to be associated with a *primed* secondary cleaning trigger meaning that the trigger for this cycle is protected by a layer

that is temperature sensitive. (Para. 28) The trigger means for the first rinse cycle (secondary cleaning zone) is recited to either be reverse temperature dependent (such as cold water soluble PVA polymer or polyisopropylacrylamide) or a pH sensitive material that is insoluble at high pH (above 10) and soluble below pH=9. (Para. 87, 36, 91) The trigger means for the first rinse cycle is recited to be protected by a priming trigger which is disposed on top of the secondary trigger. (Para. 87) The function of the priming trigger is to protect the composition for the first rinse cycle from being released during the cold water portion of the main wash cycle. (Para. 87) The water that initially floods the washer is cold and since the main wash composition has not fully dissolved the water has a pH lower than 10. If the secondary trigger, which is a composition that is either cold water or pH lower than 10 soluble, were exposed to the initial water of the main wash cycle, the composition for the first rinse cycle would be prematurely released. Suitable compositions for the *priming* trigger are recited to be polyvinyl alcohols and substances having a melting range between 40°-70° C such as natural and synthetic waxes and paraffin.

7. The trigger means for the final rinse cycle preferably selected such that it has a higher trigger temperature than the priming trigger means for the first rinse cycle. (Para. 93) Preferably these substances have a melting range between about 50°-75° C and are activated by the high temperature of the water during the final rinse cycle.

8. Applicant specifically recites in the specification that "where the term bottle is used it is understood that any container which has a dispersing aperture is intended." Since the limitation of a bottle recited in claim 1 can be broadly interpreted to include

any container with a closure, it is the examiner's opinion that the capsule recited in Speed meets the limitation of a bottle.

9. Applicant's claim 1 recites a closure comprised of two layers that abut one another, the first layer being hydrophobic and the second layer being hydrophilic. These limitations are anticipated by the primed secondary trigger recited by Speed which is comprised of a wax or paraffin (which are both insoluble and activated at elevated temperatures between 40°-70°C) priming trigger on top of a pH dependent or PVA or polyisopropylacrylamide cold water soluble secondary trigger which is soluble in water and therefore is hydrophilic. A bottle comprising such a trigger means anticipates all the limitations set forth in claims 1-5, 7, 9, 10, 12, 19, 20, 22, 24-27, 29 and 36.

10. The inventive capsule disclosed by Speed comprises 3 separate compartments each sealed by a film that has a different mechanism of dispersion including melting, water solubility with the second compartment being comprised of a two layer primed trigger means as enumerated above. Such a container anticipates the limitations set forth in claims 24-26, 29 and 36.

11. Since the capsule recited by Speed is interpreted to approximate a container capable of being closed and since the films recited by Speed are disposed within the capsule and upon their dispersion dispense compositions, the layers disclosed by Speed can be said to be disposed within or adjacent to a dispensing aperture of the bottle as claimed in claims 20, 22 and 27.

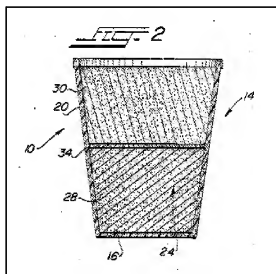
Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-5, 7, 9, 10, 12, 19-22, 24-27, 29, 30, 33, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginn U.S. Patent No. 4,588,080 (hereafter referred to as Ginn) and Speed et al. U.S. Patent Application Publication No. 2002/0187910 (hereafter referred to as Speed).

14. Ginn teaches a composite unitary packet including as distinct components a detergent or washing composition and a fabric treating composition and in which the several different components are released in a predetermined, controlled sequence, (Col. 1, lines 9-14) In a preferred embodiment of the invention the packet consists of a plug-like, multi-layer laminate bonded to or otherwise sealed contiguously against the base and to a circumscribing bounding wall of a plastic, cup-like receptacle. In the



physical arrangement described, initial access of washing solution to the laminate is limited to an exposed top surface only of an uppermost layer of the laminate. (Col. 2, lines 49-56)

15. Ginn is silent regarding disposing barrier compounds between the layers of cleaning compounds in the container recited.

16. Speed teaches what has been recited above.

17. Both Ginn and Speed are directed towards means for providing single unit capsules of washing liquids for automatic washing machines that remove the need for adding different washing compositions manually during different wash cycles. The motivation to combine Ginn and Speed would have been to increase the number of different detergent compositions that could be used in Ginn beyond those that can be dissolved in a time controlled manner. Using the compositions of Speed as separator layers in Ginn would have been obvious to one of ordinary skill in the art who desired to make a container capable of releasing different detergent compositions during the appropriate dishwashing cycles.

18. In the event that the recitation of a bottle in the independent claims is restricted to a structure more narrowly interpreted than above, it is the examiner's opinion that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have disposed the layers recited by Speed within the container for a washing machine as recited by Ginn to obtain the advantage of not being restricted to time-dependent dissolution of the cleaning compound as in Ginn. This combination

would produce the invention as claimed in claims 1-5, 7, 9, 10, 12, 19-22, 24-27, 29, 30, 33, 34 and 36.

19. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginn U.S. Patent No. 4,588,080 (hereafter referred to as Ginn) and Waeschenbach et al. WO 00/06688, U.S. Patent No. 6,800,598 used herein for reference (hereafter referred to as Waeschenbach).

20. Ginn teaches what has been recited above but is silent regarding disposing barrier compounds between the layers of cleaning compounds in the container recited.

21. Waeschenbach teaches "in a preferred embodiment of the invention the envelope incorporates at least one compound which for the concentration of the specific compound at the end of the main cleaning cycle of the dishwashing machine is not or is only slightly soluble and at the concentration of the specific compound in the clear rinsing cycle has such an adequate solubility that in the clear rinsing cycle it is so substantially dissolved or detached from the core or cores that an at least partial escape of the core material into the clear rinsing cycle medium is possible.

Preferably the solubility of the compound increases with decreasing OH^- ionic concentration and therefore decreasing pH-value in the surrounding medium.

In particularly preferred manner the compound at a pH-value above 10 has little or no solubility and at a pH-value below 9 has an adequate solubility to ensure a substantially complete dissolving or detachment from the core or cores in the clear rinsing cycle, so that an at least partial escape of the core material into the clear rinsing cycle medium is possible.

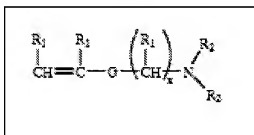
Preferably the compound incorporates a polymer, preferably a pH-sensitive polymer, which comprises at least one repeat unit, which has at least one basic function, which is not part of the polymer backbone chain.

In a preferred embodiment the polymer comprises at least one repeat unit, which is based on a compound selected from the group comprising vinyl alcohol derivatives, acrylates or alkyl acrylates, which have said basic function.

According to the invention the polymer is a carbohydrate functionalized with said basic function.

The aforementioned basic function is preferably an amine and in particularly preferred form a secondary or tertiary amine.

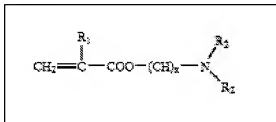
In a preferred alternative the repeat unit is based on a compound with the following formula III:



in which G is a linking group selected from —COO—, —OCO—, —CONH—, NHCO—, —NHCONH—, —NHCOO—, —OCONH— or —OCOO—, R₁, independently of one another, is hydrogen or an alkyl group with 1 to 3 carbon atoms, R₂ independently of

one another, hydrogen or an alkyl group with 1 to 5 carbon atoms and x is an integer from 1 to 6.

Preferably the repeat unit is based on a compound with the following formula IV:



in which R_1 , independently of one another, is hydrogen or an alkyl group with 1 to 3 carbon atoms, R_2 , independently of one another, is hydrogen or an alkyl group with 1 to 5 carbon atoms and x is an integer from 1 to 6.

Preferably the core or at least part of the cores has a melting point of more than 35°C ., preferably between 55 and 70°C .

The invention also relates to a process for performing a dishwashing cycle in a dishwashing machine, where the composition according to the invention is added at an appropriate time during the pre-rinsing cycle or main cleaning cycle to the medium in the dishwashing machine. " (Col. 5 line 15-Col. 6, line 33)

22. Both Ginn and Waeschenbach are directed towards means for providing single unit capsules of washing liquids for automatic washing machines that remove the need for adding different washing compositions manually during different wash cycles. The motivation to combine Ginn and Waeschenbach would have been to increase the number of different detergent compositions that could be used in Ginn beyond those

that can be dissolved in a time controlled manner. Using the compositions of Waeschenbach as separator layers in Ginn would have been obvious to one of ordinary skill in the art who desired to make a container capable of releasing different detergent compositions during the appropriate dishwashing cycles.

23. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have disposed the compositions recited by Waeschenbach between the layers of different washing compositions recited by Ginn in order to obtain the advantage of not being restricted to time-dependent dissolution of the cleaning compound as in Ginn. This combination would have produced the invention as recited in claims 13-18.

Response to Arguments

6. Applicant's arguments filed 9/2/08 have been fully considered but they are not persuasive. Applicant asserts on page 9 of the remarks that there is no teaching in Speed of trigger components disposed to abut one another because the examiner has not specifically cite this teaching in Speed by page and line number. As enumerated above, Speed clearly teaches a primed trigger for the secondary cleaning zone comprising a two layer structure of paraffin or wax and a cold water soluble or pH dependent layer. The recitations in Speed describing this structure are present above and were explained in the previous office action and cited by paragraph number of the

PG Pub. This structure clearly anticipates the two layer closure structure claimed by applicant.

7. Applicant has further asserted on page 9 of the remarks that it would be "illogical for Speed to disclose an arrangement such as that claimed because the trigger means in Speed are used to separate different products that are to be released in the wash water, and if the trigger means abutted according to the Examiner's contention, then the second (and/or third) product would not be released as required". However, as described previously, Speed clearly discloses a *primed* trigger, the intention of which is to provide a protective layer over the trigger for the secondary cleaning zone to prevent it from being prematurely activated. This structure is the same as that claimed by applicant and therefore applicant's assertion that there is no disclosure of a two layer structure with components that abut one another is not found persuasive.

8. Applicant has asserted on page 10 of the remarks it was unexpected that the hydrophilic and hydrophobic components used for the closure did not "repel" one another making the production of a bi-layer structure surprising successful. The examiner is not persuaded that "a skilled artisan would expect that hydrophilic and hydrophobic layers would be incompatible when layered and abutted against one another". Applicant's specification asserts that "it would be expected that two layers would be mutually incompatible and repulse one another".(Para. 41) Basic chemistry teaches that hydrophilic and hydrophobic compounds are not expected to be *soluble* in one another, but there is no expectation that two such compounds could not be expected to coexist *next* to each other. One of ordinary skill would not be surprised at

the ability to manufacture a two layer structure of hydrophobic and hydrophilic materials. Additionally, this structure was already disclosed in the prior art by Speed, further evidencing that those with basic understandings of chemistry would have reasonably expected to be successful in employing hydrophobic and hydrophilic layers in abutting relationships.

9. Applicant also asserts on page 10 of the remarks that "the presently claimed arrangement creates the strongest synergistic mutual supporting relationship" and cites paragraphs 39-41 of the PG Pub of the specification for this application. Applicant's specification does not enumerate what exactly is intended to be meant by the "strongest synergistic mutual supporting relationship" but this does not appear to be a quantifiable property of the closure claimed. Designation of this relationship as strongest implies that it is a relative term. Applicant has provided no examples or evidence of what other relationships the abutting relationship has a "stronger synergistic mutual supporting relationship" than. This argument has not been supported by data or a sufficient explanation as to exactly what property applicant has found unexpected and is therefore not persuasive.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE JACOBSON whose telephone number is (571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-7 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michele L. Jacobson
Examiner /M. J./
Art Unit 1794

/Carol Chaney/
Supervisory Patent Examiner, Art Unit 1794